

Amendments to the Drawings:

The attached sheet of drawings includes changes to Fig. 1 through 3 in which appropriate labels have been inserted as required. In addition, Figures 1 and 2 have been designated by the legend "Prior Art".

Attachment: Replacement Sheets

REMARKS

In response to the objection to the drawings set forth in item 3 on pages 2 and 3 of the Office Action, Applicants have submitted herewith replacement sheets bearing Figures 1 through 3, in which appropriate labels have been inserted, as required. In addition, Figures 2 and 3 have been designated as "Prior Art". Moreover, in response to the Examiner's comments in item 4 of the Office Action, Applicants have amended the specification to include appropriate headings.

Finally, in response to the Examiner's comments in item 2 on page 2 of the Office Action, the references cited in the Information Disclosure Statement submitted August 11, 2005 have been resubmitted in a new Information Disclosure Statement, together with the appropriate fee therefor.

Claims 1, 2, 4, and 7 have been rejected under 35 U.S.C. §103(a) as unpatentable over Prehofer (U.S. Patent No. 6,958,974) in view of Yamamoto et al (Japanese Publication No. 2003-249945). In addition, Claims 3 and 6 have been rejected as unpatentable over the same two references, and further in view of Kalmanek, Jr. et al (U.S. Patent No. 7,245,610), while Claims 5 and 8 have been rejected as unpatentable over Prehofer, Yamamoto et al, Kalmanek, Jr. et al and further in view of Wu (Published U.S. Patent Application No. 2005/0147052). However, for the reasons set forth hereinafter, Applicants

respectfully submit that all claims of record herein distinguish over the cited references, whether considered separately or in combination.

The present invention is directed to a method for controlling calls for packet switched networks, in which each network includes at least two local area networks and a connecting network. In particular, the invention relates to a method of administering such a network in a manner which minimizes congestion, and assures that transmissions with the highest priority level are successfully completed within the capacity or bandwidth of the network.

As illustrated in Figure 3 of the application, and discussed in the specification at page 4, line 1 through page 5, line 14, where the connecting network 70 does not have its own gatekeeper, the packets that make up a particular data stream may be routed through the network via a large number of alternative routes, through different nodes. Moreover, for each node through which a call may be routed, there is a possibility of packets from the continuous stream of data comprising a call between being lost, depending on the available bandwidth in the respective paths between each pair of nodes. (See, for example, page 5, lines 5-8.)

The present invention deals with this difficulty in a simple manner by providing a control method in which a call for which the degree of degradation (that is, the rate of packet loss) is unacceptable, is intentionally terminated. In particular, as defined in Claim 1 as amended, the method according to the

invention calls for the steps of a) determining an acceptable packet loss rate for a call which is to be established between two local area networks; b) comparing the actual packet loss rate to the acceptable packet loss rate; and c) dropping the call if the actual packet loss rate is greater than the acceptable packet loss rate. In addition, Claim 1 as amended further specifies that prior to actually dropping a call, the priority of that particular transmission of a continuous stream of data is changed, and steps a) through c) are repeated. Thus, where an unacceptable packet loss rate is detected initially, the priority rate for the transmission in question may be modified, and a further check is made to see whether the packet loss rate is still unacceptable. If so, the call is terminated or dropped.

The cited Prehofer reference, on the other hand, discloses a packet switching network in which a VOIP call can be maintained by reassigning a particular transmission to a different quality class. (See, for example, Column 1, lines 11-15; Column 3, lines 27-38.) In other words, the purpose of the Prehofer system is to provide a technique for maintaining the call by upgrading its quality class, rather than intentionally terminating a call for which the unacceptable level of packet loss is occurring. The Office Action at page 5, in the carryover paragraph states in this regard that Prehofer suggests that data transmission needs to be terminated if the data quality is too poor, referring to Column 2, line 67 – Column 3, line 7. A reading of this statement in context, however, indicates that the prospect of a call being terminated is indeed the problem to be avoided in Prehofer, rather than providing a mechanism for managing network

congestion by selectively dropping particular calls. Thus, at Column 3, lines 1-3, Prehofer points out that prior art systems “can even result in data transmission needing to be terminated on account of the quality being too poor for the data service.” Accordingly, one object of the Prehofer apparatus “is to develop a method such that, when a requested data service is transmitted, the stable quality grade demanded by the data services is provided”, thereby avoiding the problem of data transmission’s “needing to be terminated on account of the quality being too poor for the data service”.

The Office Action at page 5 further states that, although Prehofer does not teach dropping a call if the actual packet loss rate is greater than the acceptable packet loss rate, Yamamoto et al does teach such a technique. Accepting this proposition as so for the sake of discussion, Applicants respectfully submit that the Yamamoto et al reference is fundamentally incompatible with Prehofer in that the objective of Prehofer is to avoid the problem of calls being dropped “on account of the quality being too poor”. Accordingly, Prehofer actually teaches away from any possible combination with Yamamoto et al. Indeed, to the extent that Yamamoto et al suggests dropping a call when the actual packet loss rate is above a threshold, it falls within the description of the prior art at the top of Column 3, in Prehofer and the problems associated therewith, which the Prehofer system is designed to avoid. Accordingly, a combination of Yamamoto et al and Prehofer would be contrary to the teachings and objective of Prehofer.

In addition, it is noted that Claim 1 has been amended to include the limitations formerly contained in Claim 7, which has been cancelled. Accordingly, Claim 1 as amended provides a control method in which, as described previously, when an unacceptable actual packet loss rate is encountered, the priority of the transmission is changed, and a further check is made to determine whether the packet loss rate remains unacceptable. If so, only then is the call dropped.

The latter limitation of Claim 1 is also not taught or suggested by the references. Although Prehofer provides a system in which a "quality class" of a particular transmission is changed (that is, either upgraded or downgraded) in order to maintain the overall transmissions within the available bandwidth of the network, as described at Column 3, lines 27-38, it makes no provision for intentionally dropping a call as an instrumentality for administering the network to optimize utilization of available bandwidth.

The Kalmanek, Jr. et al patent, on the other hand has been cited only in respect of Claims 3 and 6, as teaching playing a recorded announcement when a call is to be dropped, while Wu has been cited in respect of Claims 5 and 8 as teaching the "storing of data relating to dropped calls for future use." Neither of the latter references, therefore, supplies those features of Claim 1, which are missing in Prehofer and Yamamoto et al, as described above.

In light of the foregoing remarks, this application should be in consideration for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #038665.56185US).

Respectfully submitted,



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Attachments – Replacement Drawings
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